



## LIST OF CONTENTS

Number 1

### **Method Development**

- ## Determination of MPTP, a toxic impurity of pethidine M.G. Quaglia, A. Farina, E. Donati, V. Cotechini, E. Bossù (Rome, Italy) . . . . .



### **Pharmaceutical Applications**

- Use of near-infrared spectrometry for quantitative determinations of selamectin and moisture in topical formulations  
G.K. Webster, D.A. Farrand, E. Johnson, M.A. Litchman (Lee's Summit, MO, USA), N. Broad, S. Maris (Kent, UK) 21

- Assay method for quality control and stability studies of a new CVS disorder agent (compound 93/478)  
 A.K. Dwivedi, D. Saxena, A.K. Saxena, S. Singh (Lucknow, India) . . . . . 33



- A rapid and sensitive method for simultaneous determination of insulin and A21-desamido insulin by high-performance liquid chromatography P. Moslemi, A.R. Najafabadi, H. Tajerzadeh (Tehran, Iran) . . . . . 45

Bioanalytical Applications

- Development and validation of an automated SPE-LC-MS/MS assay for valdecoxib and its hydroxylated metabolite in human plasma J.Y. Zhang, D.M. Fast, A.P. Breau (Skokie, IL, USA) . . . . . 61



- Assay and purity control of tetracycline, chlortetracycline and oxytetracycline in animal feeds and premixes by TLC densitometry with fluorescence detection W. Neidong, S. Hua, E. Roets, J. Hoogmartens (Leuven, Belgium) 85

- Stereospecific high-performance liquid chromatographic analysis of flurbiprofen: application to pharmacokinetic studies  
X.W. Tang, S.W.J. Wang, N.M. Davies (Pullman, WA, USA) 95

Simultaneous determination of pioglitazone and its two active metabolites in human plasma by LC-MS/MS Z.J. Lin, W. Ji (New Castle, DE, USA), D. Desai-Krieger (Spring House, PA, USA), L. Shum (New Castle, DE, USA)	101
<b>Short Communications</b>	
HPLC method with UV detection for evaluation of digoxin tablet dissolution in acidic medium after solid-phase extraction A. Jedlička, T. Grafnetterová, V. Miller (Prague, Czech Republic)	109
Phytochemical and pharmacological studies on <i>Orthosiphon stamineus</i> Benth. (Lamiaceae) hydroalcoholic extracts N.-K. Olah (Cluj, Romania), L. Radu, C. Mogoșan, D. Hanganu, S. Gocan (Cluj-Napoca, Romania)	117
Validation of an HPLC method for the determination of ciprofloxacin in human plasma S. Imre, M.T. Dogaru, C.E. Vari, T. Muntean, L. Kelemen (Tg. Mures, Romania)	125
Determination of bifonazole in creams containing methyl- and propyl <i>p</i> -hydroxybenzoate by derivative spectrophotometric method G. Popović, M. Čakar, D. Agbaba (Belgrade, Yugoslavia)	131
 Number 2	
<b>Method Development</b>	
Potential of immobilized artificial membrane chromatography for lipophilicity determination of arylpropionic acid non-steroidal anti-inflammatory drugs F. Pehourcq, C. Jarry, B. Bannwarth (Bordeaux, France)	137
Effect of high shear rate on stability of proteins: kinetic study A. Oliva, A. Santoveña, J. Fariña, M. Llabrés (La Laguna, Spain)	145
Chiral separation of dioxopromethazine in eye drops by CZE with charged cyclodextrin P. Mikuš, I. Valášková, E. Havránek (Bratislava, Slovakia)	157
Development of an HPLC method for the determination of ranitidine and cimetidine in human plasma following SPE D. Zendelovska, T. Stafilov (Skopje, Macedonia)	165
 <b>Pharmaceutical Applications</b>	
Development and validation of an UV derivative spectrophotometric determination of Losartan potassium in tablets O.C. Lastra, I.G. Lemus, H.J. Sánchez, R.F. Pérez (Santiago, Chile)	175
Near-infrared spectroscopy for the determination of testosterone in thin-film composites W. Fountain, K. Dumstorf, A.E. Lowell, R.A. Lodder, R.J. Mumper (Lexington, KY, USA)	181
Flow-injection spectrophotometric determination of paracetamol in tablets and oral solutions M. Knochen, J. Giglio (Montevideo, Uruguay), B.F. Reis (Piracicaba, Brazil)	191
Discrimination of Fritillary according to geographical origin with Fourier transform infrared spectroscopy and two-dimensional correlation IR spectroscopy R. Hua, S.-Q. Sun, Q. Zhou (Beijing, China), I. Noda (West Chester, OH, USA), B.-Q. Wang (Beijing, China)	199
LC determination of impurities in azithromycin tablets L. Miguel, C. Barbas (Madrid, Spain)	211
Validation of a reversed-phase HPLC method for 1,10-phenanthroline-5,6-dione and analysis of its impurities by HPLC-MS G.A. Shabir, N.J. Forrow (Abingdon, UK)	219
Spectrophotometric and liquid chromatographic determination of trimebutine maleate in the presence of its degradation products A. El-Gindy, S. Emara, G.M. Hadad (Ismailia, Egypt)	231

Simultaneous reversed-phase high-performance liquid chromatographic method for the determination of diosmin, hesperidin and naringin in different citrus fruit juices and pharmaceutical formulations

F.I. Kanaze, C. Gabrieli, E. Kokkalou, M. Georgarakis, I. Niopas (Thessaloniki, Greece) . . . . . 243

#### Bioanalytical Applications

Simultaneous fast HPLC-MS/MS analysis of drug candidates and hydroxyl metabolites in plasma

Y. Hsieh, J.-M. Brisson, G. Wang, K. Ng, W.A. Korfmacher (Kenilworth, NJ, USA) . . . . . 251

Stereospecific determination of citalopram and desmethylcitalopram by capillary electrophoresis and liquid-phase microextraction

S. Andersen, T.G. Halvorsen, S. Pedersen-Bjergaard, K.E. Rasmussen, L. Tanum, H. Refsum (Oslo, Norway) . . . . . 263

High-performance liquid chromatography-mass spectrometry analysis of diltiazem and 11 of its phase I metabolites in human plasma

E. Molden, G. Helen Bøe, H. Christensen, L. Reubaet (Oslo, Norway) . . . . . 275

HPLC determination and pharmacokinetics of sustained-release bupropion tablets in dogs

D. Zhang, B. Yuan, M. Qiao, F. Li (Shenyang, China) . . . . . 287

Disposable electrochemical biosensor for the detection of the interaction between DNA and lycorine based on guanine and adenine signals

H. Karadeniz, B. Gulmez, F. Sahinci, A. Erdem, G.I. Kaya, N. Unver, B. Kivcak, M. Ozsoz (Izmir, Turkey) . . . . . 295

Quantitative RT-PCR ELISA to determine the amount and ratio of positive- and negative strand viral RNA synthesis and the effect of guanidine in poliovirus infected cells

B. Verheyden, S. Lauwers, B. Rombaut (Brussels, Belgium) . . . . . 303

#### Short Communications

A study of the determination of the hypertensive drug captopril by square wave cathodic adsorptive stripping voltammetry

X. Ioannides, A. Economou, A. Voulgaropoulos (Thessaloniki, Greece) . . . . . 309

Determination of quercetin and kaempferol in human urine after orally administrated tablet of ginkgo biloba extract by HPLC

F.M. Wang, T.W. Yao, S. Zeng (Hangzhou, PR China) . . . . . 317

Simultaneous determination of L- and D-carnitine using a sequential injection analysis/amperometric biosensors system

R.-I. Stefan, R.G. Bokretson, J.F. van Staden (Pretoria, South Africa), H.Y. Aboul-Enein (Riyadh, Saudi Arabia) . . . . . 323

Analysis of synthetic anti-diabetic drugs in adulterated traditional Chinese medicines by high-performance capillary electrophoresis

Y.-R. Ku, L.-Y. Chag, L.-K. Ho, J.-H. Lin (Taipei, Taiwan) . . . . . 329

## Number 3

#### Method Development

Potential of immobilized artificial membrane chromatography for lipophilicity determination of arylpropionic acid non-steroidal anti-inflammatory drugs

F. Pehourcq, C. Jarry, B. Bannwarth (Bordeaux, France) . . . . . 137

Effect of high shear rate on stability of proteins: kinetic study

A. Oliva, A. Santoveña, J. Fariña, M. Llabrés (La Laguna, Spain) . . . . . 145

Chiral separation of dioxopromethazine in eye drops by CZE with charged cyclodextrin

P. Mikuš, I. Valášková, E. Havránek (Bratislava, Slovakia) . . . . . 157

Development of an HPLC method for the determination of ranitidine and cimetidine in human plasma following SPE

D. Zendelovska, T. Stafilov (Skopje, Macedonia) . . . . . 165

**Pharmaceutical Applications**

Development and validation of an UV derivative spectrophotometric determination of Losartan potassium in tablets O.C. Lastra, I.G. Lemus, H.J. Sánchez, R.F. Pérez (Santiago, Chile) . . . . .	175
Near-infrared spectroscopy for the determination of testosterone in thin-film composites W. Fountain, K. Dumstorf, A.E. Lowell, R.A. Lodder, R.J. Mumper (Lexington, KY, USA) . . . . .	181
Flow-injection spectrophotometric determination of paracetamol in tablets and oral solutions M. Knochen, J. Giglio (Montevideo, Uruguay), B.F. Reis (Piracicaba, Brazil) . . . . .	191
Discrimination of Fritillary according to geographical origin with Fourier transform infrared spectroscopy and two-dimensional correlation IR spectroscopy R. Hua, S.-Q. Sun, Q. Zhou (Beijing, China), I. Noda (West Chester, OH, USA), B.-Q. Wang (Beijing, China) . . . . .	199
LC determination of impurities in azithromycin tablets L. Miguel, C. Barbas (Madrid, Spain) . . . . .	211
Validation of a reversed-phase HPLC method for 1,10-phenanthroline-5,6-dione and analysis of its impurities by HPLC-MS G.A. Shabir, N.J. Forrow (Abingdon, UK) . . . . .	219
Spectrophotometric and liquid chromatographic determination of trimebutine maleate in the presence of its degradation products A. El-Gindy, S. Emara, G.M. Hadad (Ismailia, Egypt) . . . . .	231
Simultaneous reversed-phase high-performance liquid chromatographic method for the determination of diosmin, hesperidin and naringin in different citrus fruit juices and pharmaceutical formulations F.I. Kanaze, C. Gabrieli, E. Kokkalou, M. Georgarakis, I. Niopas (Thessaloniki, Greece) . . . . .	243

**Bioanalytical Applications**

Simultaneous fast HPLC-MS/MS analysis of drug candidates and hydroxyl metabolites in plasma Y. Hsieh, J.-M. Brisson, G. Wang, K. Ng, W.A. Korfmacher (Kenilworth, NJ, USA) . . . . .	251
Stereospecific determination of citalopram and desmethylcitalopram by capillary electrophoresis and liquid-phase microextraction S. Andersen, T.G. Halvorsen, S. Pedersen-Bjergaard, K.E. Rasmussen, L. Tanum, H. Refsum (Oslo, Norway) . . . . .	263
High-performance liquid chromatography-mass spectrometry analysis of diltiazem and 11 of its phase I metabolites in human plasma E. Molden, G. Helen Bøe, H. Christensen, L. Reubaet (Oslo, Norway) . . . . .	275
HPLC determination and pharmacokinetics of sustained-release bupropion tablets in dogs D. Zhang, B. Yuan, M. Qiao, F. Li (Shenyang, China) . . . . .	287
Disposable electrochemical biosensor for the detection of the interaction between DNA and lycorine based on guanine and adenine signals H. Karadeniz, B. Gulmez, F. Sahinci, A. Erdem, G.I. Kaya, N. Unver, B. Kivcak, M. Ozsoz (Izmir, Turkey) . . . . .	295
Quantitative RT-PCR ELISA to determine the amount and ratio of positive- and negative strand viral RNA synthesis and the effect of guanidine in poliovirus infected cells B. Verheyden, S. Lauwers, B. Rombaut (Brussels, Belgium) . . . . .	303

**Short Communications**

A study of the determination of the hypertensive drug captopril by square wave cathodic adsorptive stripping voltammetry X. Ioannides, A. Economou, A. Voulgaropoulos (Thessaloniki, Greece) . . . . .	309
Determination of quercetin and kaempferol in human urine after orally administrated tablet of ginkgo biloba extract by HPLC F.M. Wang, T.W. Yao, S. Zeng (Hangzhou, PR China) . . . . .	317
Simultaneous determination of L- and D-carnitine using a sequential injection analysis/amperometric biosensors system R.-I. Stefan, R.G. Bokretson, J.F. van Staden (Pretoria, South Africa), H.Y. Aboul-Enein (Riyadh, Saudi Arabia) . . . . .	323
Analysis of synthetic anti-diabetic drugs in adulterated traditional Chinese medicines by high-performance capillary electrophoresis Y.-R. Ku, L.-Y. Chag, L.-K. Ho, J.-H. Lin (Taipei, Taiwan) . . . . .	329

## Number 4

**Method Development**

Quality control of liquid herbal drug preparations: ethanol content and test on methanol and 2-propanol S. Apers, E. Van Meenen, L. Pieters, A. Vlietinck (Wilrijk, Belgium) . . . . .	529
Determination of hamamelitannin, catechins and gallic acid in witch hazel bark, twig and leaf by HPLC H. Wang, G.J. Provan, K. Helliwell (Herts, UK) . . . . .	539
Stability-indicating HPTLC determination of tizanidine hydrochloride in bulk drug and pharmaceutical formulations K.R. Mahadik, A.R. Paradkar, H. Agrawal, N. Kaul (Pune, India) . . . . .	545
Square wave adsorptive stripping voltammetric determination of piromidic acid. Application in urine A. Guiberteau Cabanillas, J.M. Ortiz Burguillos, M.A. Martínez Cañas, M.I. Rodríguez Cáceres, F. Salinas López (Badajoz, Spain) . . . . .	553
Use of mathematical derivatives (time-domain differentiation) on chromatographic data to enhance the detection and quantification of an unknown 'rider' peak S.J. Ford, M.A. Elliott, G.W. Halbert (Glasgow, UK) . . . . .	563

Flow amperometric determination of pharmaceuticals with on-line electrode surface renewal R.I.L. Catarino (Porto, Portugal), A.C.L. Conceição (Lisboa, Portugal), M.B.Q. Garcia (Porto, Portugal), M.L.S. Gonçalves (Lisboa, Portugal), J.L.F.C. Lima (Porto, Portugal), M.M. Correia dos Santos (Lisboa, Portugal) . . . . .	571
--	-----

Polysaccharide-based chiral phase under polar organic mode of elution in the determination of the enantiomeric purity of emtricitabine an anti-HIV analogue nucleoside Q.B. Cass, C.S.F. Watanabe (São Carlos, Brazil), J.A. Rabi, P.Q. Bottari, M.R. Costa, R.M. Nascimento, J.E.D. Cruz (Rio de Janeiro, Brazil), R.C. Ronald (Pullman, WA, USA) . . . . .	581
---	-----

**Pharmaceutical Applications**

Stripping voltammetric and polarographic techniques for the determination of anti-fungal ketoconazole on the mercury electrode P. Arranz, A. Arranz, J.M. Moreda, A. Cid, J.F. Arranz (Vitoria, Spain) . . . . .	589
Simultaneous determination of loratadine and pseudoephedrine sulfate in pharmaceutical formulation by RP-LC and derivative spectrophotometry M.M. Mabrouk, H.M. El-Fatatty, S. Hammad (Tanta, Egypt), A.A.M. Wahbi (Alexandria, Egypt) . . . . .	597
Linear regression analysis and its application to the multivariate spectral calibrations for the multiresolution of a ternary mixture of caffeine, paracetamol and metamizol in tablets E. Dinç (Ankara, Turkey) . . . . .	605

Simultaneous HPLC determination of hydrophilic whitening agents in cosmetic products M.-L. Chang, C.-M. Chang (Jen-Te Hsian, Taiwan, ROC) . . . . .	617
--	-----

LC determination of impurities in methoxsalen drug substance: isolation and identification of isopimpinellin as a major impurity by atmospheric pressure chemical ionization LC/MS and NMR G.J. Lehr, T.L. Barry (Jamaica, NY, USA), J.D. Franolic (Rockville, MD, USA), G. Petzinger, P. Scheiner (Jamaica, NY, USA) . . . . .	627
--	-----

Direct determination of metals in organics by inductively coupled plasma atomic emission spectrometry in aqueous matrices T. Wang, X. Jia, J. Wu (Rahway, NJ, USA) . . . . .	639
---	-----

Electrochemical oxidation of azithromycin and its derivatives Z. Mandić, Z. Weitner, M. Ilijas (Zagreb, Croatia) . . . . .	647
---	-----

Comparison of multivariate calibration methods to determine simultaneously mebendazole–cambendazole and mebendazole–thiabendazole in pharmaceutical preparations by UV–visible spectrophotometry S.R.C. Andrade, I.S. Scarminio, M.M.F. Nery, A.C. de Oliveira (Londrina, Brazil) . . . . .	655
--	-----

Development of a simple HPLC method for separation of doxycycline and its degradation products S. Skúlason, E. Ingólfsson, T. Kristmundsdóttir (Reykjavík, Iceland) . . . . .	667
Electrochemical behavior of the antituberculosis drug isoniazid and its square-wave adsorptive stripping voltammetric estimation in bulk form, tablets and biological fluids at a mercury electrode M.M. Ghoneim, K.Y. El-Baradie, A. Tawfik (Tanta, Egypt) . . . . .	673
Square-wave adsorptive cathodic stripping voltammetry of pantoprazole A. Radi (Dumyat, Egypt) . . . . .	687
Fluorescence spectroscopy determination of fluoroquinolones by charge-transfer reaction D. Liming, X. Qingqin, Y. Jianmei (Shanxi linfen, PR China) . . . . .	693
<b>Bioanalytical Applications</b>	
Simultaneous high-performance liquid chromatographic assay of furosemide and propranolol HCL and its application in a pharmacokinetic study Y.S. El-Saharty (Cairo, Egypt) . . . . .	699
Extended application of an LC-MS/MS method for the analysis of vesnarinone and its metabolites in human urine and dialysate fluid K.S. Sekar, S.L. Bramer (Rockville, MD, USA) . . . . .	711
Development and implementation of an electrochemiluminescence immunoassay for the determination of an angiogenic polypeptide in dog and rat plasma A.S. Yuan, M.L. Morris, K.C. Yin, J.Y.-K. Hsieh, B.K. Matuszewski (West Point, PA, USA) . . . . .	719
A rapid and sensitive method for determination of dimethyl benzoylphenyl urea in human plasma by using LC/MS/MS M. Zhao, Y. Zabelina, M.A. Rudek, A.C. Wolff, S.D. Baker (Baltimore, MD, USA) . . . . .	725
Electrochemical oxidation of biological molecules at carbon paste electrodes pre-treated in guanine solutions R.P. da Silva, S.H.P. Serrano (São Paulo, Brazil) . . . . .	735
Comparison of UV and tandem mass spectrometric detection for the high-performance liquid chromatographic determination of diclofenac in microdialysis samples B.X. Mayer, K. Namiranian, P. Dehghanyar (Vienna, Austria), R. Stroh, H. Mascher (Baden, Austria), M. Müller (Vienna, Austria) . . . . .	745
HPLC-UV method development and validation for 16-dehydropregnolone, a novel oral hypolipidaemic agent, in rat biological matrices for application to pharmacokinetic studies S.K. Singh, N. Mehrotra, S. Sabarinath, R.C. Gupta (Lucknow, India) . . . . .	755
Flow-injection chemiluminescence detection for studying protein binding of terbutaline sulfate with on-line microdialysis sampling Z. Wang, Z. Zhang, Z. Fu, D. Chen, X. Zhang (Chongqing, P.R. China) . . . . .	765
<b>Short Communications</b>	
Determination of imipramine in presence of iminodibenzyl and in pharmaceutical dosage form B.A. El Zeany, A.A. Moustafa, N.F. Farid (Cairo, Egypt) . . . . .	775
Hydroxamic acids: proton donor and acceptor strength for use in drug design H. Vanjari, R. Pande (Raipur, India) . . . . .	783
Flow-injection biamperometric direct determination of calcium dobesilate in irreversible couple system J.-F. Song, J.-Q. Chen (Xi'an, China) . . . . .	789
A simple and sensitive GC method for determination of <i>N</i> -methylpyrrolidine in cefepime and its preparation G. Chen, G. Liu, F. Qin, Y. Wang (Shanghai, China) . . . . .	797
Enantiomeric separation of the key intermediate of paroxetine using chiral chromatography V.V. Vivekanand, V. Ravi Kumar, P.K. Mohakhud, G.O. Reddy (Hyderabad, India) . . . . .	803

Analysis of ginkgolides and bilobalide in <i>Ginkgo biloba</i> L. extract injections by high-performance liquid chromatography with evaporative light scattering detection C. Tang, X. Wei, C. Yin (Shanghai, China) . . . . .	811
RNA extraction for quantitative enterovirus RT-PCR: comparison of three methods B. Verheyden, A. Thielemans, B. Rombaut, P. Kronenberger (Brussels, Belgium) . . . . .	819
Ion-selective electrode for the determination of prazosin in tablets S. Khalil (Fayoum, Egypt), A. Kelzieh (Latakia, Syria), S.A. Ibrahim (Cairo, Egypt) . . . . .	825
Analysis of aristolochic acid in nine sources of Xixin, a traditional Chinese medicine, by liquid chromatography/atmospheric pressure chemical ionization/tandem mass spectrometry T.-T. Jong, M.-R. Lee, S.-S. Hsiao, J.-L. Hsai (Taichung, Taiwan), T.-S. Wu (Tainan, Taiwan), S.T. Chiang (Pingtung, Taiwan), S.-Q. Cai (Beijing, China) . . . . .	831
HPLC determination of tiazofurin in the rat brain S. Ristic, J. Tasic, V. Piperski, M. Dacevic, L. Petrovic, M. Jokanovic . . . . .	839
Trace elements analysis of <i>Echinacea purpurea</i> —herbal medicinal S. Ražić, A. Onjia, B. Potkonjak (Belgrade, Yugoslavia) . . . . .	845
HPLC and HPTLC assays for the antimalarial agents Chloroquine, Primaquine and Bulaquine A.K. Dwivedi, D. Saxena, S. Singh (Lucknow, India) . . . . .	851

## Number 5

### **Method Development**

Use of control sample for estimation of prediction error in multivariate determination of lidocaine solutions with non-column chromatographic diode array UV spectroscopy

K. Wiberg (Södertälje, Stockholm, Sweden), M. Andersson, A. Hagman (Södertälje, Sweden), S.P. Jacobsson (Södertälje, Stockholm, Sweden) . . . . .	859
---	-----

Relation between retention factors of immunosuppressive drugs in microemulsion electrokinetic chromatography with biosurfactants and octanol–water partition coefficients

S.E. Lucangioli (Buenos Aires, Argentina), E. Kenndler (Vienna, Austria), A. Carlucci, V.P. Tripodi, S.L. Scioscia, C.N. Carducci (Buenos Aires, Argentina) . . . . .	871
---	-----

A validated LC method for imatinib mesylate

V.V. Vivekanand, D. Sreenivas Rao, G. Vaidyanathan, N.M. Sekhar, S. Avijit Kelkar, P. Ramachandra Puranik (Hyderabad, India) . . . . .	879
--	-----

Comparison between mono- and bi-exponential models for reaction kinetics in the immunoradiometric assay of neuron-specific enolase

J. García Gómez, J.L. Moreno Frigols (Burjassot, Spain) . . . . .	891
---	-----

Trimipramine determination in pharmaceutical preparations with an automated multicommutated reversed-flow system

J.A.V. Prior, J.L.M. Santos, J.L.F.C. Lima (Porto, Portugal) . . . . .	903
--	-----

Testimony of the correlation between DHEA and bioavailable testosterone using a biochromatographic concept: effect of two salts

C. André, A. Berthelot, J.F. Robert, M. Thomassin, Y.C. Guillaume (Besançon, France) . . . . .	911
--	-----

Flow injection and HPLC determination of furosemide using pulsed amperometric detection at microelectrodes

A. Guzmán, L. Agüí, M. Pedrero, P. Yáñez-Sedeño, J.M. Pingarrón (Madrid, Spain) . . . . .	923
---	-----

Validation of a RP-HPLC method for the assay of formoterol and its related substances in formoterol fumarate dihydrate drug substance

S.O. Akapo, M. Asif (Napa, CA, USA) . . . . .	935
---	-----

**Pharmaceutical Applications**

Validation of HPLC and UV spectrophotometric methods for the determination of meropenem in pharmaceutical dosage form A.S.L. Mendez, M. Steppe, E.E.S. Schapoval (Porto Alegre, Brazil) . . . . .	947
Determination of content uniformity and distribution characteristics of an investigational drug in its tablets dosage form and granule by ICP-AES L. Wang, M. Marley, H. Jahansouz, C. Bahnck (West Point, PA, USA) . . . . .	955
A gas chromatographic method for the indirect determination of hydroxylamine in pharmaceutical preparations: conversion into nitrous oxide J.P. Guzowski Jr (New Brunswick, NJ, USA), C. Goloski (West Chester, PA, USA), E.R. Montgomery (Cambridge, MA, USA) . . . . .	963
Direct determination of triamterene by potentiometry using a coated wire selective electrode M. Arvand, M.F. Mousavi (Tehran, Iran), M.A. Zanjanchi (Rasht, Iran), M. Shamsipur (Kermanshah, Iran) . . . . .	975
Amperometric biosensor based on monoamine oxidase (MAO) immobilized in sol-gel film for benzylamine determination in pharmaceuticals D.S. de Jesus (Porto, Portugal), C.M.C.M. Couto (Porto, Gandra, Portugal), A.N. Araújo, M.C.B.S.M. Montenegro (Porto, Portugal) . . . . .	983
Determination of cisapride, its oxidation product, propyl and butyl parabens in pharmaceutical dosage form by reversed-phase liquid chromatography J.-E. Belgaid (Tunis, Tunisia), H. Trabelsi (Tunis-Carthage, Tunisia) . . . . .	991
Identification of oxidative degradates of the TRIS salt of a 5,6,7,8-tetrahydro-1,8-naphthyridine derivative by LC/MS/MS and NMR spectroscopy—interactions between the active pharmaceutical ingredient and its counterion Y. Wu, T.-L. Hwang, K. Algayer, W. Xu, H. Wang, A. Procopio, L. DeBusi, C.-Y. Yang, B. Matuszewska (West Point, PA, USA) . . . . .	999
An HPLC method for the determination of atorvastatin and its impurities in bulk drug and tablets S. Ertürk, E. Sevinç Aktaş, L. Ersoy, S. Fıçıcioğlu (İstanbul, Turkey) . . . . .	1017
Flow-injection amperometric determination of dopamine in pharmaceuticals using a polyphenol oxidase biosensor obtained from soursop pulp V.S. Bezerra, J.L. de Lima Filho (Recife, Brazil), M.C.B.S.M. Montenegro, A.N. Araújo (Oporto, Portugal), V.L. da Silva (Recife, Brazil) . . . . .	1025
A simple and sensitive chemiluminescence method for the determination of tiopronin for a pharmaceutical formulation J. Lu, C. Lau (Shanghai, PR China), S. Yagisawa, K. Ohta, M. Kai (Nagasaki, Japan) . . . . .	1033
Three simultaneous dissolution profiles on a solid pharmaceutical formulation by a FIA manifold provided with a single spectrophotometric detector E. Vranic, M. Catalá Icardo, J. Martínez Calatayud (Valencia, Spain) . . . . .	1039
Determination of hydrogen peroxide concentration in antiseptic solutions using portable near-infrared system Y.-A. Woo, H.-R. Lim, H.-J. Kim, H. Chung (Seoul, South Korea) . . . . .	1049
Improving microdialysis extraction efficiency of lipophilic eicosanoids L. Sun, J.A. Stenken (Troy, NY, USA) . . . . .	1059
<b>Bioanalytical Applications</b>	
Quantitation of PGE9509924, a novel, nonfluorinated quinolone, in rat plasma using liquid chromatography electrospray-tandem mass spectrometry following solid-phase extraction sample clean-up in a 96-well format P.H. Zoutendam, M. Gavin, M.J. Martin, M.K. Dirr (Mason, OH, USA) . . . . .	1073
Determination of hydroxyproline in plasma and tissue using electrospray mass spectrometry E. Kindt, K. Gueneva-Boucheva, M.D. Rekhter, J. Humphries, H. Hallak (Ann Arbor, MI, USA) . . . . .	1081

HPLC-MS/MS determination of a peptide conjugate prodrug of doxorubicin, and its active metabolites, leucine-doxorubicin and doxorubicin, in dog and rat plasma C. Mazuel, J. Grove, G. Gerin (Clermont-Ferrand, France), K.P. Keenan (West Point, PA, USA) . . . . .	1093
A <sup>1</sup> H NMR-based metabonomic study of urine and plasma samples obtained from healthy human subjects E.M. Lenz, J. Bright, I.D. Wilson, S.R. Morgan, A.F.P. Nash (Macclesfield, UK) . . . . .	1103
Electrochemical detection of DNA immobilized on gold colloid particles modified self-assembled monolayer electrode with silver nanoparticle label M. Wang, C. Sun, L. Wang, X. Ji, Y. Bai, T. Li, J. Li (Changchun, PR China) . . . . .	1117
Validated HPLC method for determination of LASSBio-581, a new heterocyclic <i>N</i> -phenylpiperazine derivative, in rat plasma L. Tasso, G. Neves (Porto Alegre, Brazil), R. Menegatti, C.A.M. Fraga, E.J. Barreiro (Rio de Janeiro, Brazil), V.L. Eifler-Lima, S.M.K. Rates, T. Dalla Costa (Porto Alegre, Brazil) . . . . .	1127
Direct injection HPLC method for the determination of selected benzodiazepines in plasma using a Hisep column C. Pistros, J.T. Stewart (Athens, GA, USA) . . . . .	1135
<b>Short Communications</b>	
Potentiometric and voltammetric determination of methimazole M. Aslanoglu, N. Peker (Sanliurfa, Turkey) . . . . .	1143
Determination of bopindolol using the flow injection technique coupled with solid phase extraction J. Meireles (Porto, Portugal; Hradec Králové, Czech Republic), H. Sklenářová, D. Šatinský, P. Solich (Hradec Králové, Czech Republic), A.N. Araújo, M.C.B.S.M. Montenegro (Porto, Portugal) . . . . .	1149
Simultaneous separation and determination of active components in <i>Cordyceps sinensis</i> and <i>Cordyceps militarris</i> by LC/ESI-MS L.-F. Huang, Y.-Z. Liang, F.-Q. Guo, Z.-F. Zhou, B.-M. Cheng (Changsha, PR China) . . . . .	1155
Two derivative spectrophotometric methods for the simultaneous determination of lovastatin combined with three antioxidants C.K. Markopoulou, J.E. Koundourellis (Thessaloniki, Greece) . . . . .	1163
Specific determination of <i>myo</i> -inositol in multivitamin pharmaceutical preparations by a flow injection system using a <i>myo</i> -inositol dehydrogenase reactor coupled with a glucose eliminating enzyme reactor M. Ono, T. Nakajima, Y. Itoh (Saitama, Japan), K. Shimada, S. Yamato (Niigata, Japan) . . . . .	1175
Characterization of eptifibatide during drug formulation stability assays R. Wang, D. Feder, F. Hsieh (Cambridge, MA, USA) . . . . .	1181
Calendar of forthcoming events . . . . .	1189
List of Contents . . . . .	1193
Author index . . . . .	1203
Subject index . . . . .	1209